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ABSTRACT

Using circulation data to determine whether materials specifically acquired for the circulation collections of libraries at undergraduate institutions show heavy use, this study examined the first 3 years of shelf life of one year's book acquisitions at a small liberal arts college. Contrary to expectations of a high rate of use for newly acquired materials, a large percentage of items did not circulate during the 3-year period. A comparison of the use of the items with the source of the request reveals no significant difference among gifts, faculty requests, or requests from the library staff. Tables and figures showing study results are included. (Author/THC)

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CIRCULATION OF NEWLY-ACQUIRED MATERIALS AT THE JUNIATA COLLEGE LIBRARY

by

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1980

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ABSTRACT

This study examines the first three years of shelf life of one year's book acquisitions at Juniata College. Contrary to expectations of a high rate of use, a large percentage of these items did not circulate during the three-year period. A comparison of the use of the items with the source of the request reveals no significant difference among gifts, faculty requests, or requests from members of the library staff.

As academic librarians move into the 1980's, the combination of rampant inflation in the cost of library materials, increasingly crowded facilities, and pressures to justify the continuation of expensive on-site information stores has forced a closer look at how libraries are used. The results of this closer look are not always pleasant. Sometimes controversial, very often illuminating, studies of the use of libraries--and of library materials in particular--have raised questions about the philosophies underlying collection development which are difficult to answer.

Possibly the most controversial of the recent studies was that done at the University of Pittsburgh in the mid-to-late 1970's.[1] One of the major findings of this study, that forty per cent of the books added to the Hillman Collection at the University of Pittsburgh Library in 1969 had not circulated during their first seven years of shelf life, generated a flurry of statements and counter-statements in library literature on everything ranging from the methodology of the study to the nature of a research library.[2] A particular bone of contention with the Pittsburgh study would seem to be the use of circulation data, yet circulation has been shown to have some direct connection to in-library use. McGrath, at the start of the 1970's, found a correlation between the subjects of books circulated and books used within the library of the University of Southwestern Louisiana.[3] Hindle and Buckland, at the end of the 1970's, found a correlation between the circulation and in-house use of books at

Newcastle-Upon-Tyne Polytechnic and the University of Lancaster.[4] Voigt, writing in response to the Pittsburgh study, advanced the view that circulation studies reflect the use of libraries by undergraduates and beginning graduate students, not the research use of research libraries.[5] The heat and light from this controversy have warmed and illuminated some rather interesting corners of the library world.

For librarians in institutions predominately undergraduate in nature, the temptation to examine collection use and compare the findings with the Pittsburgh study is very strong. The concept is easily adapted to the undergraduate library; acquisitions and circulation data frequently exist in readily-obtainable forms. With a clientele composed primarily of undergraduates, the arguments against drawing on circulation figures as indicators of collection use, such as those made by Voigt, are also less forceful.

What might one expect to find in a study of circulation data in an undergraduate library? The nature of undergraduate education generally would tend to push one towards the view of undergraduate libraries as collections of frequently used materials purchased in response to rather straight-forward curricular needs. Libraries in predominately undergraduate institutions by and large have neither the funds nor the facilities to build research collections. In short, one could hypothesize that materials acquired for the circulation collections of libraries in undergraduate institutions would show heavy use.

The purpose of this study was to test this hypotheses by determining the use of a circulation collection in an undergraduate institution through examination of circulation data. Two factors of use were examined: point of initial use and frequency of use. The source of the decision to acquire the books was also examined. If the hypothesis was accepted, the use of libraries in undergraduate institutions would be demonstrably different from that seen in larger, more research-oriented libraries. If the hypothesis was rejected, serious questions might be raised about collection development practices in undergraduate libraries and about widely-held views of the utility of collections in such libraries.

The Institution

The study was performed at Juniata College in Huntingdon, Pennsylvania. A small liberal arts college, Juniata has an enrollment of approximately 1200 students who pursue their education in eighteen departments. The college libraries consist of approximately 180,000 items housed in a main library and in a smaller science branch library. Although the college is located within thirty miles of the main campus of The Pennsylvania State University, the residential nature of the student body and the relatively isolated location of the institution make the college libraries the primary source of information. Out-of-library circulation during the period under examination ranged from 12,242 items to 11,600 items. Given the large number of students studying in the sciences and the heavy reliance

of science students on non-circulating periodicals, one suspects that these circulation figures might be low for liberal arts institutions of similar size.

Methodology

Because the circulation system in the Juniata college libraries is manual rather than automated, circulation data exist only within the individual volumes. To counter the effects of book loss through theft and weeding--and the resultant loss of circulation data--the decision was made to examine the first three years of shelf life for the most recent academic year's acquisitions which would fit this time frame. Accordingly, books acquired by the college libraries during the period from September, 1975, through August, 1976, formed the basis for the study.

Typed monthly lists of acquisitions were used to identify the books acquired during this twelve-month period. After removing the non-circulation items from the lists, a random sample of the remaining items was drawn, using a computer-generated random number table. The lists indicated that 3594 circulating books were acquired during the 1975-76 academic year; the sample size was 395 or 11.0 per cent of the acquired items. This sample size was reliable within a five per cent error range.[6]

Each item in the sample was physically examined to determine the following information for the first three years of shelf life:

1. Frequency of circulation.

2. Point of initial circulation, determined in months elapsed after the item appeared on the acquisitions list.
3. Source of request for the item, classed in the broad categories of faculty requests, library staff requests, and gifts.

Items not found in the initial search were rechecked twice at one-month intervals before being considered missing; this period allowed for reshelving of items which might be in transition from circulation to the shelves and for normal shelf-reading to locate misplaced items. The data gathered reflect use through circulation only, including circulation while on library reserve. No attempt was made to determine in-building use.

Findings

The frequency of circulation for the sample is shown in Table 1. The first surprise of this study came after these data had been compiled; over forty per cent of the sample did not circulate during the first three years of shelf life. For a research library, this finding might not be surprising; for a library in a small liberal arts college it was somewhat unexpected. The percentage of items circulating tailed off in a rather direct relation to the frequency of circulation. It should be noted that, with a manual circulation system, no check was possible on the circulation pattern of missing items beyond the observation that they had indeed circulated at least once. Figure 1 illustrates graphically the frequency of circulation through the first three years of shelf life. It bears noting that

TABLE 1

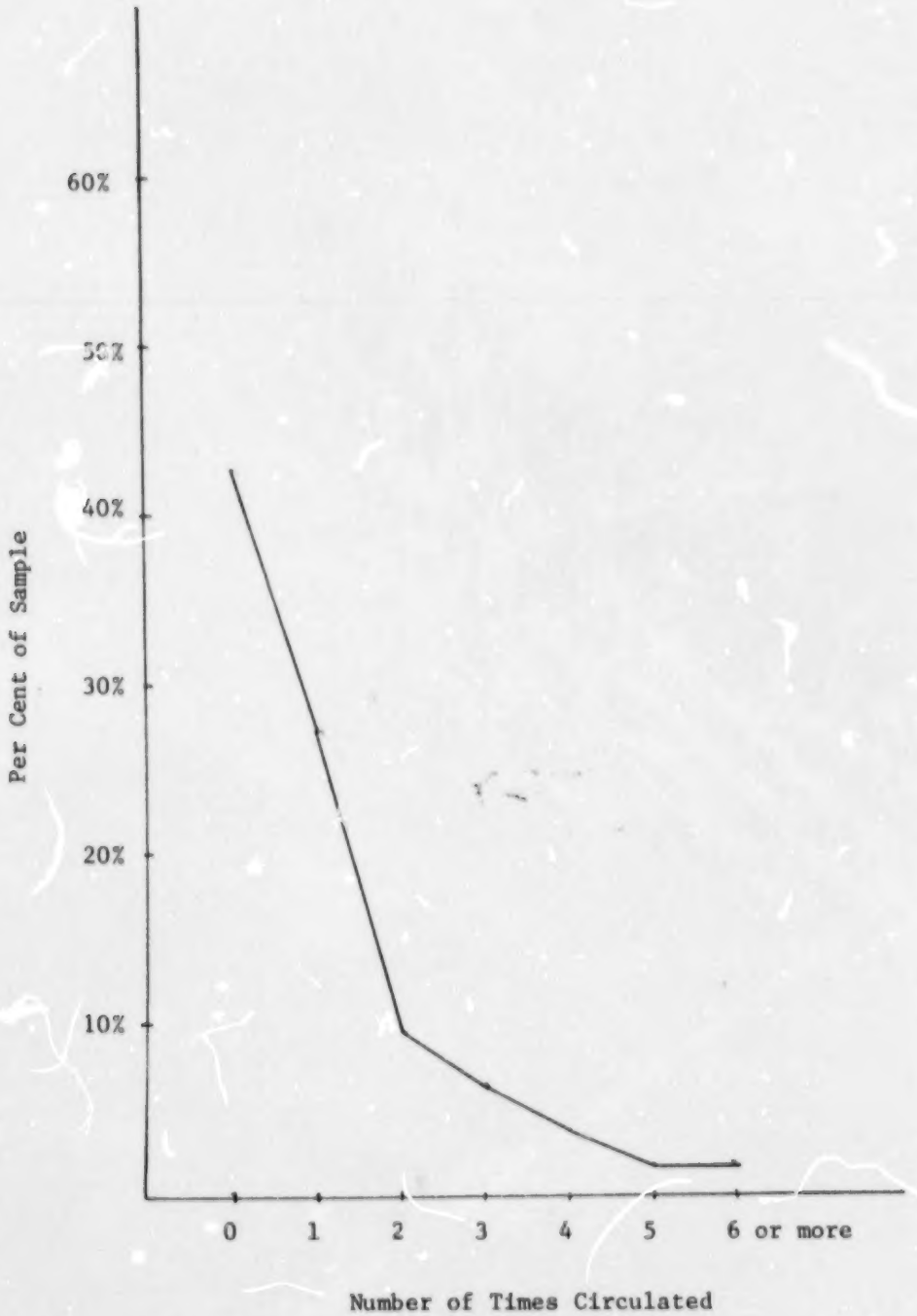
FREQUENCY OF CIRCULATION

Number of Circulations	Number of Items	Percentage of Sample
Not Circulated	168	42.5%
1	109	27.6%
2	37	9.4%
3	27	6.8%
4	13	3.3%
5	7	1.8%
6 or more	7	1.8%
Missing	27	6.8%

N = 395

FIGURE 1

Circulation of 1975-76 Acquisitions
Through Three Years of Shelf Life



the pattern shown here is quite similar to that seen elsewhere, most notably in the Pittsburgh study.[7]

The point of initial use for the items in the sample is shown in Table 2. To determine the point of initial use for each item, a simple count of months was made from the month the item appeared on the acquisitions list until the month in which it circulated, with the date of the acquisitions list serving as the first month of shelf life. For convenience in reporting, the data have been grouped into six-month increments for the three years of shelf life examined. The largest number of items--fully a quarter of the total--circulated initially during the first six months of shelf life. The number of additional items circulating for the first time in each succeeding six-month period leveled off gradually. Again, the missing volumes circulated at some time during those three years, but the manual circulation system prevented an accurate determination of the point of initial circulation. Figure 2 presents a graphic representation of the cumulative circulation of the sample.

The third part of the study involved the determination of the source of items in the sample. Acquisitions procedures at Juniata during the 1975-76 academic year called for writing the funding source and the name of the requester in each volume and on the shelf list card. An examination of these data permitted a rough categorization of items as gifts to the library or as requests by faculty or by library staff. Some slight spill-over between categories was possible;

TABLE 2

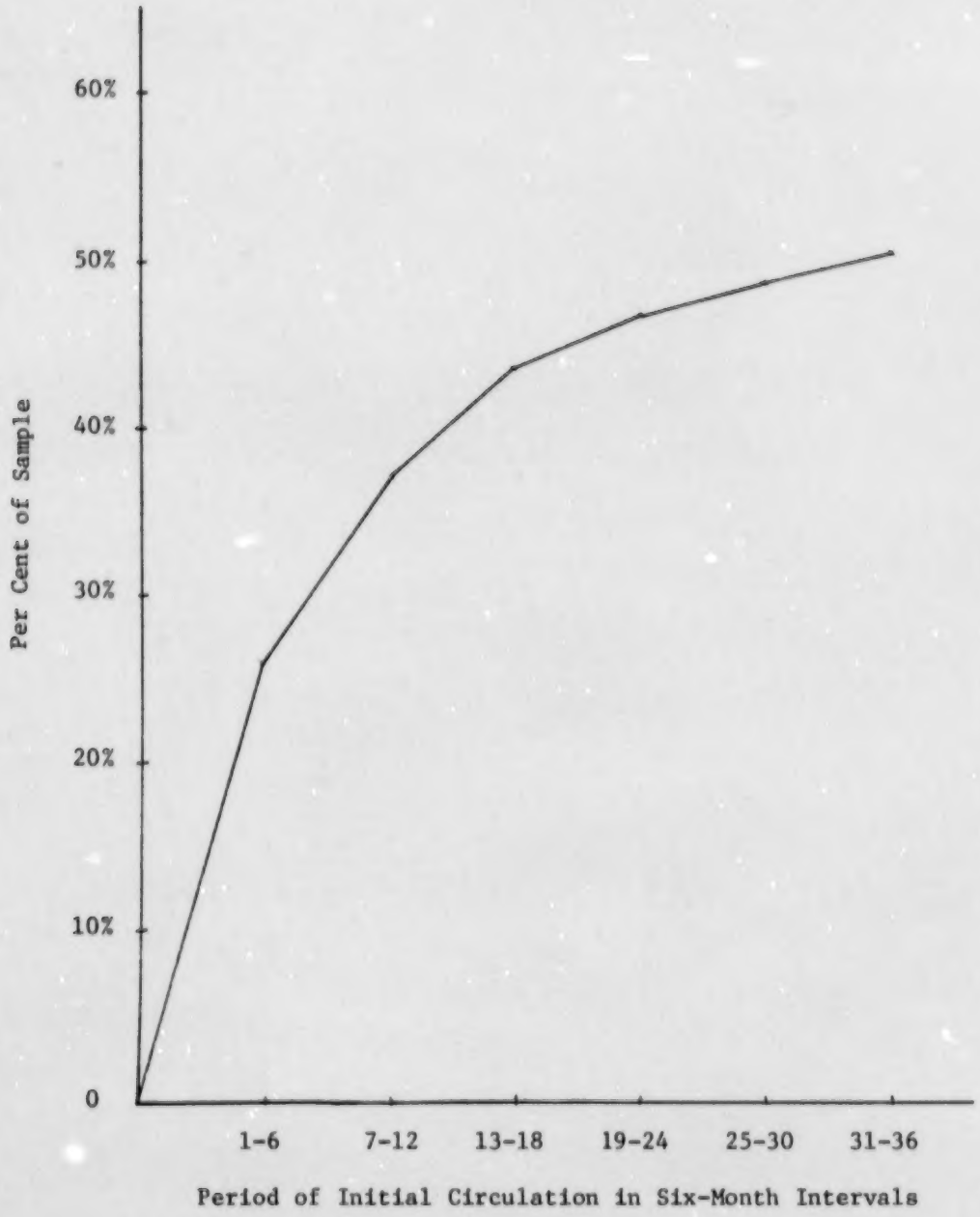
PERIOD OF INITIAL USE

Period of Initial Circulation in Six-Month Intervals	Number of Items	Percentage of Sample	Cumulative Percentage
Never Circulated	168	42.5%	
1-6	101	25.6%	25.6%
7-12	42	10.6%	36.2%
13-18	26	6.6%	42.8%
19-24	12	3.0%	45.8%
25-30	11	2.8%	48.6%
31-36	8	2.0%	50.6%
Missing	27	6.8%	

N = 395

FIGURE 2

Cumulative Use of 1975-76 Acquisitions
Through Three Years of Shelf Life



for example, a gift from a faculty member would be listed most likely with gifts rather than with faculty requests. Likewise, a request from a faculty member outside the regular departments--the Dean or President, for example--would be listed as a request from the library staff. Nonetheless, these three categories provide a fair estimation of the source of items in the sample, as shown in Table 3.

The faculty requested the largest portion of items in the sample, 58 per cent, followed by the library staff with 25.3 per cent; gifts accounted for 16.7 percent of the sample. It is interesting to note that the source of an item made no significant difference in its circulation. As shown in Table 4, a chi-square test demonstrated no significant difference in the circulation or non-circulation of an item in the sample because of its source. Note that missing books have been grouped with circulating items in this Table. Similarly, there was no significant difference in single or multiple circulation of items by source. Table 5 shows a chi-square test of this type of use; note that missing items have been excluded from Table 5 because of the impossibility of determining multiple use.

A third examination of the use of items in the sample by source is possible. As noted above, source data are marked on the shelf list cards as well as in the volumes. A chi-square test applied to a comparison of missing items with source also failed to show any significant difference. The results of this test are shown in Table 6.

TABLE 3

SOURCE OF ITEMS

Source	Number	Percentage
Faculty Request	229	58.0%
Library Request	100	25.3%
Gift	66	16.7%

N = 395

TABLE 4

COMPARISON OF CIRCULATION OF ITEMS
WITH SOURCE OF ITEMS

Source	Circulated		Did Not Circulate		Totals
Faculty Request	130	56.8%	99	43.2%	229
Library Request	63	63.0%	37	37.0%	100
Gift	34	51.5%	32	48.5%	66
Totals	227		168		395

$\chi^2 = 2.1$, df = 2, P = .50/.30

TABLE 5

COMPARISON OF MULTIPLE CIRCULATION OF ITEMS
WITH SOURCE OF ITEMS

Source	Single Circulation		Multiple Circulation		Totals
Faculty Request	66	57.4%	49	42.6%	115
Library Request	28	50.0%	28	50.0%	56
Gift	15	51.7%	14	48.3%	29
Totals	109		91		200

χ^2 = 0.8, df = 2, P = .70/.50

TABLE 6

COMPARISON OF MISSING ITEMS
WITH SOURCE OF ITEMS

Source	Missing		Not Missing		Totals
Faculty Request	15	6.6%	214	93.4%	229
Library Request	7	7.0%	93	93.0%	100
Gift	5	7.6%	61	92.4%	66
Totals	27		368		395

χ^2 = 0.1, df = 2, P = .98/.95

Conclusions

The findings of this study would tend to lead one away from the hypothesis that circulating collections in predominately undergraduate libraries have heavy use. In fact, during the first three years of shelf life, the circulation patterns shown in this study bear remarkable similarities to those one might expect in a research library. The non-circulation of over forty per cent of the items in the sample during that time is especially sobering, given the common wisdom that undergraduate collections are built for immediate use in support of the curriculum rather than for future research use. If the acquisitions at Juniata College for 1975-76 are typical of other recent years--and there are no reasons to suspect any differences--the collection is, in effect, a mini-research collection. One must assume that this was not the purpose for which the collection has been built.

The finding that the source of a request for an item in the sample made no difference in its use was also somewhat surprising. Speculation on why this might be is possible, but properly beyond the scope of the study.

Two observations are in order. First, Juniata College might be a unique case. Certainly the heavy enrollments in the sciences at this institution would lead one to suspect that the curriculum might be working against circulation of books from the college libraries. It is entirely possible that other liberal arts college libraries might experience much heavier use than is evident in this study.

To test that possibility the methodology employed here should be replicated at other similar institutions and the results compared with this study.

Second, the methods of acquiring the items in this study seem not to have worked well, if one agrees with the proposition that undergraduate libraries should be working collections rather than research collections. While it is easy enough to look back, discovering items which should not have been purchased, it is quite difficult to peer into the future, projecting the use rate for current acquisitions. As this study has demonstrated, faculty appear to possess no better talents at prognostication than librarians. Acquisitions of library materials remains more of an art than a science. A better--read "less expensive"--method of connecting students with information must be found than one which fills shelves of undergraduate libraries with books seldom or never used.

Notes

[1]Allen Kent, et al, Use of Library Materials, New York: Marcel Dekker, Inc., 1979.

[2]See "Pittsburgh University Studies of Collection Usage: A Symposium," The Journal of Academic Librarianship 5 (May 1979): 60-70.

[3]William E. McGrath, "Correlating the Subjects of Books Taken Out of and Books Used Within an Open-Stack Library," College and Research Libraries 32 (July 1971): 280-285.

[4]Anthony Hindle and Michael K. Buckland, "In-Library Book Usage in Relation to Circulation," Collection Management 2 (Winter 1978): 265-277.

[5]Melvin J. Voigt, "Circulation Studies Cannot Reflect Research Use," The Journal of Academic Librarianship 5 (May 1979): 66.

[6]Robert V. Krejcie and Daryle Morgan, "Determining Sample Size for Research Activities," Educational and Psychological Measurement 30 (1970): 607-610.

[7]Kent, p. 18.